



Myeov siRNA (h): sc-75846

BACKGROUND

Myeov (myeloma overexpressed), also known as OCIM (oncogene in multiple myeloma), is a 313 amino acid protein that is overexpressed in a variety of cancers and is thought to play a prominent role in tumor transformation and metastasis. The gene encoding Myeov maps to human chromosome 11, which comprises approximately 4% of human genomic DNA and is considered a gene and disease association dense chromosome. The chromosome 11 encoded Atm gene is important for regulation of cell cycle arrest and apoptosis following double strand DNA breaks. Atm mutation leads to the disorder known as ataxia-telangiectasia. The blood disorders Sickle cell anemia and thalassemia are caused by HBB gene mutations, while Wilms' tumors, WAGR syndrome and Denys-Drash syndrome are associated with mutations of the WT1 gene. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are also associated with defects in chromosome 11-encoded genes.

REFERENCES

1. Janssen, J.W., et al. 2002. MYEOV, a gene at 11q13, is coamplified with CCND1, but epigenetically inactivated in a subset of esophageal squamous cell carcinomas. *J. Hum. Genet.* 47: 460-464.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605625. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Moss, A.C., et al. 2006. ETV4 and Myeov knockdown impairs colon cancer cell line proliferation and invasion. *Biochem. Biophys. Res. Commun.* 345: 216-221.
4. Leyden, J., et al. 2006. Net1 and Myeov: computationally identified mediators of gastric cancer. *Br. J. Cancer* 94: 1204-1212.
5. de Almeida, R.A., et al. 2006. Control of MYEOV protein synthesis by upstream open reading frames. *J. Biol. Chem.* 281: 695-704.
6. Ataga, K.I., et al. 2007. β -thalassaemia and sickle cell anaemia as paradigms of hypercoagulability. *Br. J. Haematol.* 139: 3-13.
7. Berger, A.C., et al. 2007. The subcellular localization of the Niemann-Pick type C proteins depends on the adaptor complex AP-3. *J. Cell Sci.* 120: 3640-3652.

CHROMOSOMAL LOCATION

Genetic locus: MYEOV (human) mapping to 11q13.3.

PRODUCT

Myeov siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Myeov shRNA Plasmid (h): sc-75846-SH and Myeov shRNA (h) Lentiviral Particles: sc-75846-V as alternate gene silencing products.

For independent verification of Myeov (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-75846A, sc-75846B and sc-75846C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNases and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Myeov siRNA (h) is recommended for the inhibition of Myeov expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 μ M in 66 μ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Myeov gene expression knockdown using RT-PCR Primer: Myeov (h)-PR: sc-75846-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.